Solomon Modeling TAC Meeting

November 29, 2007

Attendees: USBR-Bill Peck, Jack Wergin, Mark Phillips, Mark Rouse; GMD 4-Wayne Bossert; KWO-Diane Coe; DWR- Jessica Ahlquist, Scott Ross, Scott Voss, Mark Billinger, Sam Perkins, Jack Garven, Tina Alder, Andrew Lyon and Darci Paull; SSPA-Steve Larson, Alex Spiliotopoulos

SSPA informed the committee that the North Fork and South Fork Solomon River models are constructed in steady state condition and transient runs are being preformed. One issue is that the model is having trouble simulating very wet years with regard to calculating stream discharge.

Test runs were performed by SSPA for the months of June through September in the years 1965, 1973, 1993, and 1995 where 4 times the amount of recharge that the data suggests was introduced and the model was low on being able to predict the amount of stream discharge. An adjustment will have to be decided upon and applied to account for these very wet years.

The temporal distribution of pumping rates and recharge are issues that are currently being addressed. Monthly pumping rates will be obtained with the method used for the RRCA model. Sam Perkins will communicate with SSPA about how this will be completed.

Evapotranspiration data is not yet included in the model. The data will be incorporated in the near future, and may help resolve issues with the timing of diversions throughout the year. Reported pumping rates from municipalities can also help resolve these issues. The data on reported pumping from municipalities is being compiled by DWR-Stockton FO and will be transmitted to SSPA.

DEM values will be compared to streambed elevation values to check for accuracy. Geographically distributed precipitation data will be used to generate a recharge curve, using the method used on the RRCA model.

The KGS report from 1995 was evaluated and the model results are consistent with this report. A NRCS irrigation manual on the monthly use of water by crops will be sent to SSPA and compared to the values used in the RRCA model.

Drain cells outflow from the RRCA model are contributing 4,000 -5,000 ac-ft/yr as inflow into the Solomon model domain. These flows will be verified by field crew in Stockton with maps and rates of outflow (cfs) sent by SSPA.

The average water level within the model domain of the North Fork is higher than that of the actual measured water levels. A trend exists in the residuals. The residuals are too high in the west and not too bad in the east. This will need to be reviewed.

SSPA now has all data needed for model construction.

Action Items:

1. DWR transmit reported monthly pumping from municipalities to SSPA
2. DWR transmit copy of NRCS irrigation manual on monthly crop water use
3. SSPA forward map with values of RRCA drains to DWR in cfs.

The next TAC meeting will be during the week of January 24, 2008 at 1pm (CST).